THE AMA GUIDES: THE SIXTH, OR TAKE THE FIFTH?

RANDALL UPDEGROVE, M.D., M.P.H.
UNIVERSITY ORTHOPEDICS, INC.

TALKING POINTS

- BRIEF GUIDES HISTORY
- EVOLUTION OF THE 6TH EDITION
- 5TH EDITION WEAKNESSES
- RATIONALE AND METHODOLOGY BEHIND THE 6TH EDITION CHANGES
- 5TH VS. THE 6TH RATING COMPARISONS
- CASE STUDY EXAMPLES

WHAT ARE THE GUIDES?

- "A TREATISE ON EVALUATING IMPAIRMENT"
- BASED ON FAMILIAR FORMAT OF CLINICAL DISCUSSIONS INVOLVING:
  - DIAGNOSIS
  - SYMPTOMS AND FUNCTIONAL DIFFICULTIES RESULTING
  - PHYSICAL FINDINGS
  - CLINICAL STUDIES RESULTS

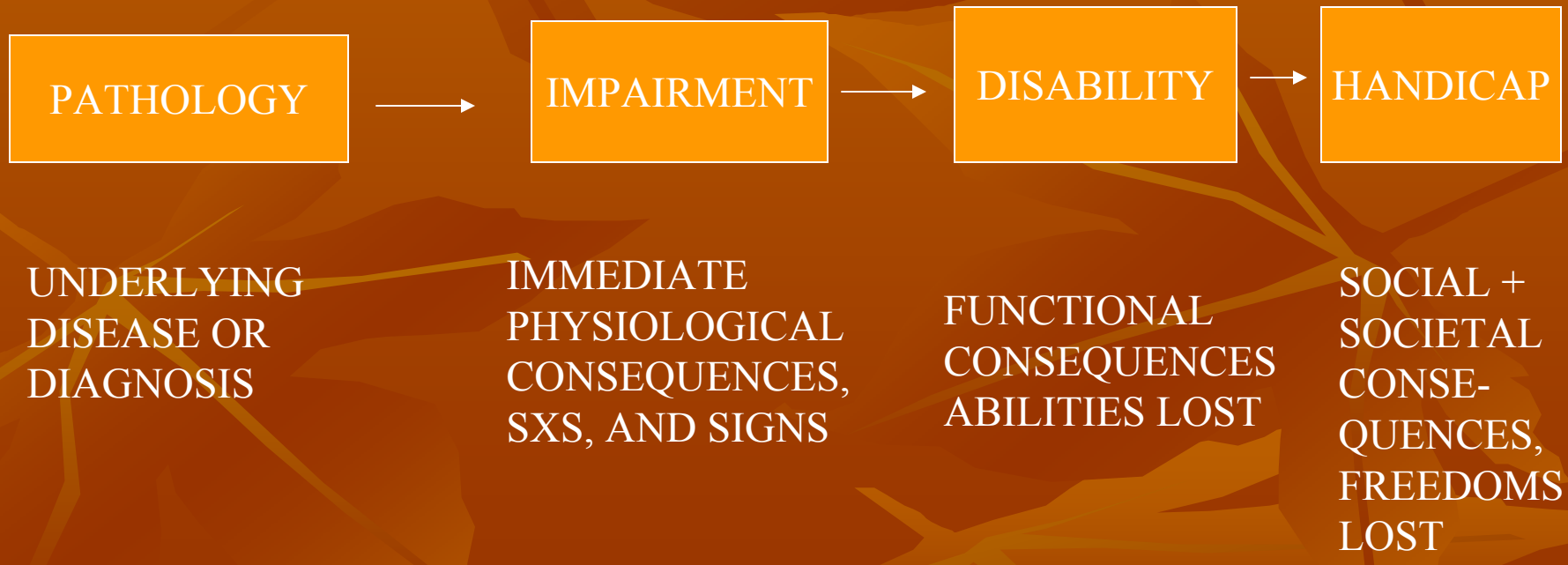
GUIDES HISTORY

- 1958:
  - AMA ARTICLE, *"A GUIDE TO THE EVALUATION OF PERMANENT OF THE EXTREMITIES AND BACK"*
- FROM 1958-1970, 12 ADDITIONAL GUIDES APPEARED IN ***JAMA***
- 1971: FIRST EDITION OF *THE GUIDES*
- SIGNIFICANT REVISIONS:
  - 3RD EDITION: ROM PIE CHARTS
  - 4TH EDITION: DIAGNOSIS-RELATED ESTIMATES (DRE)
  - 5TH EDITION: MODIFIED DRE, EXPANDED ROM METHOD FOR SPINE IMPAIRMENTS
- ALL EDITIONS, HOWEVER, BASED ON SAME ASSESSMENT PHILOSOPHY

WHO: ICIDH

- FOCUS ON INDIVIDUAL
- EXTENDS ACROSS 4 LEVELS OF DISABLEMENT (LINEARLY)
  - PATHOLOGY
  - IMPAIRMENT
  - DISABILITY
  - HANDICAP

WHO INTERNATIONAL CLASSIFICATION OF ILLNESS



CRITICISMS OF ICIDH

- OVERLY SIMPLISTIC
- UNIDIRECTIONAL
- IMPLIES CAUSATION AND IRREVERSIBILITY
- DOES NOT ACKNOWLEDGE THAT DISABILITIES AND HANDICAPS CAN GIVE RISE TO IMPAIRMENTS
- DOES NOT FULLY ACCOUNT FOR IMPORTANT ENVIRONMENTAL MODIFIERS OF A BIOLOGICAL, PSYCHOLOGICAL, AND SOCIAL NATURE

INTERIM REVISIONS: BRIDGE TO THE PRESENT

- SEVERAL CONCEPTUAL MODELS (NAGI, IOM (1991), ICIDH-2 (1997) MARKED EVOLUTION OF CONCEPTUAL THOUGHT
  - CHANGED TERMINOLOGY OF DISABLEMENT TO THAT OF ENABLEMENT
  - PROVIDED UNIFIED AND STANDARD LANGUAGE TO CHARACTERIZE FUNCTIONAL CONSEQUENCES OF VARIETY OF HEALTH CONDITIONS

THE ICF

- INTERNATIONAL STANDARD TO DESCRIBE AND MEASURE HEALTH AND DISABILITY
- COMPREHENSIVE MODEL OF DISABLEMENT
  - INTENDED TO DESCRIBE AND MEASURE HEALTH DISABILITY AT THE INDIVIDUAL AS WELL AS POPULATION LEVELS.

FOUNDATION OF 6TH EDITION: THE ICF

- CLASSIFICATION WAS FIRST CREATED IN 1980 (AND THEN CALLED THE INTERNATIONAL CLASSIFICATION OF IMPAIRMENTS, DISABILITIES, AND HANDICAPS, OR ICIDH
- WHO'S INTERNATIONAL CLASSIFICATION OF FUNCTIONING, DISABILITY AND HEALTH
- PROVIDES A UNIFYING FRAMEWORK FOR CLASSIFYING THE CONSEQUENCES OF DISEASE
- DESCRIBES HOW PEOPLE LIVE WITH HEALTH CONDITION
- DESCRIBES BODY FUNCTIONS, STRUCTURES, ACTIVITIES AND PARTICIPATION
- CLASSIFIED FROM BODY, INDIVIDUAL, ENVIRONMENTAL AND SOCIETAL PERSPECTIVES

THE ICF: THEORY

- FUNCTIONING AND DISABILITY ARE VIEWED AS A COMPLEX INTERACTION BETWEEN THE HEALTH CONDITION OF THE INDIVIDUAL AND THE CONTEXTUAL FACTORS OF THE ENVIRONMENT AS WELL AS PERSONAL FACTORS. THE PICTURE PRODUCED BY THIS COMBINATION OF FACTORS AND DIMENSIONS IS OF "THE PERSON IN HIS OR HER WORLD.“
- THE CLASSIFICATION TREATS THESE DIMENSIONS AS ***INTERACTIVE*** AND ***DYNAMIC*** RATHER THAN LINEAR OR STATIC
- RECOGNIZES THAT LIMITATIONS TO PARTICIPATION MAY SECONDARILY PRODUCE ACTIVITY RESTRICTIONS/IMPAIRMENTS
- ALSO RECOGNIZES IMPACT OF ENVIRONMENTAL AND PERSONAL FACTORS AS DISEASE CONSEQUENCES

THE ICF: IMPROVED ASSESSMENT TOOL

- ALLOWS FOR AN ASSESSMENT OF THE DEGREE OF DISABILITY
- IS NOT, THOUGH, A MEASUREMENT INSTRUMENT
- IS APPLICABLE TO ALL PEOPLE, WHATEVER THEIR HEALTH CONDITION
- LANGUAGE OF ICF IS NEUTRAL AS TO ETIOLOGY, PLACING EMPHASIS ON ***FUNCTION*** RATHER THAN CONDITION OR DISEASE
- IS CAREFULLY DESIGNED TO BE RELEVANT ACROSS CULTURES AS WELL AS AGE GROUPS AND GENDERS, MAKING IT HIGHLY APPROPRIATE FOR HETEROGENEOUS POPULATIONS

THE ICF

- A CLASSIFICATION OF HEALTH AND HEALTH RELATED DOMAINS
- DOMAINS ARE CLASSIFIED FROM BODY, INDIVIDUAL AND SOCIETAL PERSPECTIVES BY MEANS OF TWO MAIN LISTS
  - LIST OF BODY FUNCTIONS AND STRUCTURE
  - LIST OF DOMAINS OF ACTIVITY AND PARTICIPATION
  - SINCE AN INDIVIDUAL'S FUNCTIONING AND DISABILITY OCCURS IN A CONTEXT ALSO INCLUDES A LIST OF ENVIRONMENTAL FACTORS

THE ICF

- ACKNOWLEDGES THAT EVERY HUMAN BEING CAN EXPERIENCE A DECREMENT IN HEALTH AND THEREBY EXPERIENCE SOME DEGREE OF DISABILITY
- ‘MAINSTREAMS’ THE EXPERIENCE OF DISABILITY AND RECOGNISES IT AS A UNIVERSAL HUMAN EXPERIENCE
- SHIFTS THE FOCUS FROM CAUSE TO IMPACT, PLACING ALL HEALTH CONDITIONS ON AN EQUAL FOOTING, ALLOWING THEM TO BE COMPARED USING A COMMON METRIC – THE RULER OF HEALTH AND DISABILITY

THE ICF

- TAKES INTO ACCOUNT THE SOCIAL ASPECTS OF DISABILITY AND DOES NOT SEE DISABILITY ONLY AS A 'MEDICAL' OR 'BIOLOGICAL' DYSFUNCTION
- EMPHASIS IS ON THE COMPREHENSIVE IMPACT OF DISABILITY ON AN INDIVIDUAL
- INCLUDES CONTEXTUAL FACTORS
  - ENVIRONMENTAL FACTORS ARE LISTED ALLOWING RECORD OF IMPACT OF ENVIRONMENT ON PERSON'S FUNCTIONING

THE ICF

- STRUCTURED AROUND THE FOLLOWING BROAD COMPONENTS:
  - BODY FUNCTIONS AND STRUCTURE
  - ACTIVITIES (RELATED TO TASKS AND ACTIONS BY AN INDIVIDUAL) AND PARTICIPATION (INVOLVEMENT IN A LIFE SITUATION)
  - ADDITIONAL INFORMATION ON SEVERITY AND ENVIRONMENTAL FACTORS

ICF TERMINOLOGY

- BODY FUNCTIONS AND BODY STRUCTURES
- ACTIVITY
  - ACTIVITY LIMITATIONS
- PARTICIPATION
  - PARTICIPATION RESTRICTIONS
- IMPAIRMENTS

BODY FUNCTIONS

- PHYSIOLOGICAL FUNCTIONS OF BODY SYSTEMS
  - INCLUDES PSYCHOLOGICAL FUNCTIONS

BODY STRUCTURES

- ANATOMIC PARTS OF THE BODY SUCH AS ORGANS, LIMBS, AND THEIR COUNTERPARTS

ACTIVITY

- EXECUTION OF A TASK OR ACTION BY AN INDIVIDUAL

ACTIVITY LIMITATIONS

- DIFFICULTIES AN INDIVIDUAL MAY HAVE IN EXECUTING ACTIVITIES

PARTICIPATION

- INVOLVEMENT IN A LIFE SITUATION

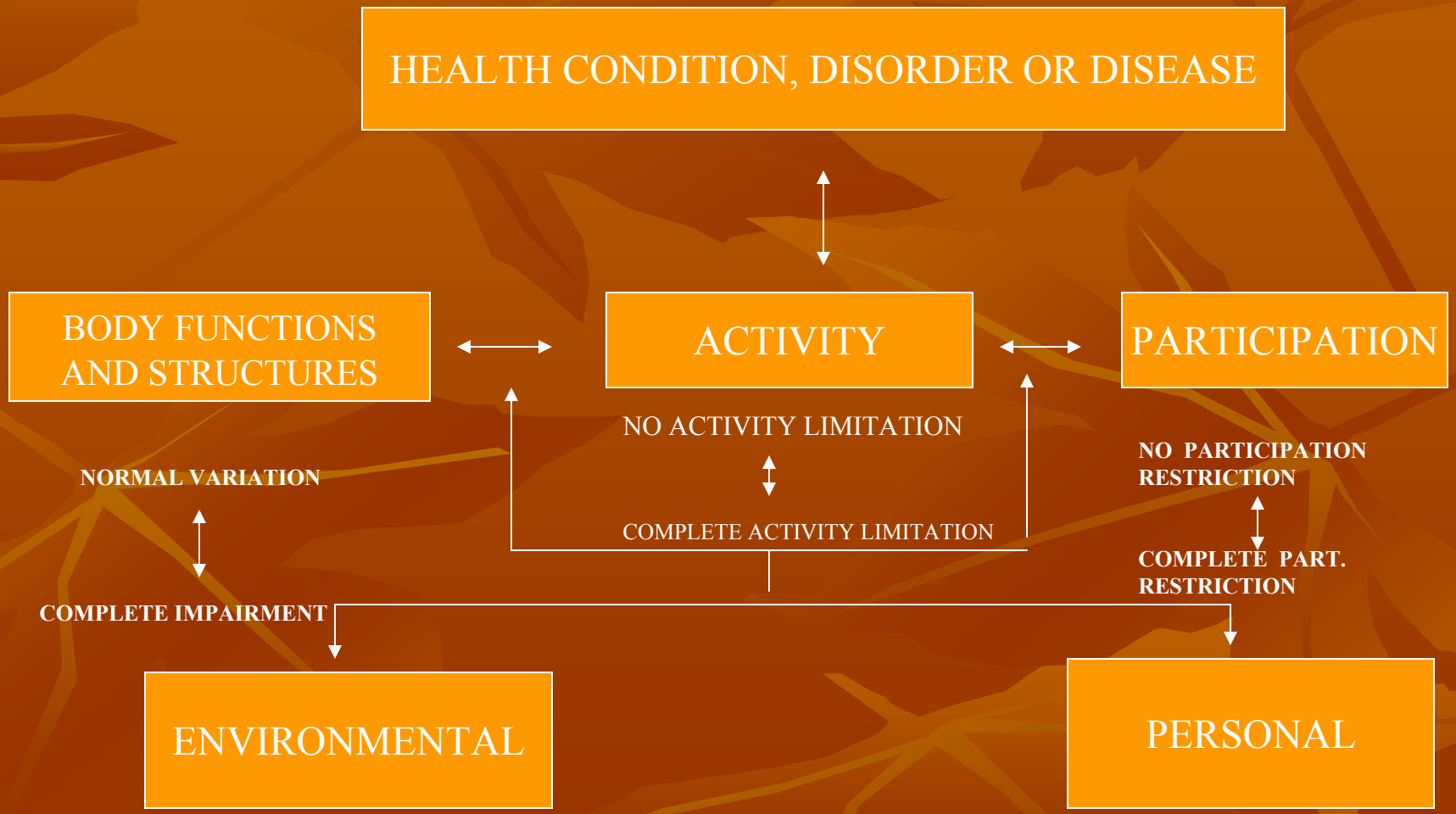
PARTICIPATION RESTRICTIONS

- PROBLEMS AN INDIVIDUAL MAY EXPERIENCE IN INVOLVEMENT IN LIFE SITUATIONS

IMPAIRMENTS

- PROBLEMS IN BODY FUNCTION OR STRUCTURE SUCH AS A SIGNIFICANT DEVIATION OR LOSS

ICF MODEL OF DISABLEMENT



AMA GUIDES KEY DEFINITIONS

- IMPAIRMENT
- DISABILITY
- IMPAIRMENT RATING

GUIDES KEY DEFINITIONS

- IMPAIRMENT
  - SIGNIFICANT DEVIATION , LOSS, LOSS OF USE OF BODY STRUCTURE/FUNCTION IN INDIVIDUAL WITH HEALTH CONDITION, DISORDER OR DISEASE
  - QUANTITATIVE ESTIMATE OF LOSSES
  - DEFINED BY ANATOMIC, STRUCTURAL, FUNCTIONAL, AND DIAGNOSTIC CRITERIA
  - FOLLOWS ACCEPTED DIAGNOSTIC PROCESSES AND PROCEDURES

DISABILITY

- ACTIVITY LIMITATIONS AND/OR PARTICIPATION RESTRICTIONS IN AN INDIVIDUAL WITH A HEALTH CONDITION, DISORDER, OR DISEASE
- IMPAIRMENT/DISABILITY RELATIONSHIP COMPLEX, HARD TO PREDICT
- AFFECTED BY MOTIVATION, TECHNOLOGY, AND ACCOMODATIONS
- ALSO AFFECTED BY PHYSICAL, PSYCHOLOGICAL, PSYCHOSOCIAL FACTORS
- CAN CHANGE OVER TIME

DISABILITY

"WHAT WE CAN DO, VS. WHAT WE WANT TO DO"

IMPAIRMENT RATING

- CONSENSUS-DERIVED PERCENTAGTE ESTIMATE OF LOSS OF ACTIVITY REFLECTING SEVERITY FOR A GIVEN HEALTH CONDITION, AND DEGREE OF ASSOCIATED LIMITATIONS IN TERMS OF ADLs

DOMAINS OF PERSONAL FUNCTION

- TYPES OF HUMAN PERSONAL FUNCTION MOST OFTEN AFFECTED BY IMPAIRMENTS, AND FOR WHICH WELL-ACCEPTED MEASUREMENT TOOLS EXIST
- TWO DOMAINS:
  - MOBILITY
  - SELF-CARE
- CAN BE PERFORMED WITH/WITHOUT ASSISTANCE
- CAN BE MODIFIED INDEPENDENTLY
  - ADAPTIVE AIDS WITHOUT HUMAN ASSISTANT
- HIGHEST LEVEL OF SAFE INDEPENDENCE FOR ANY ACTIVITY IS EQUAL TO THAT PERSON'S FUNCTIONAL LEVEL

MOBILITY

- TWO CATEGORIES
  - TRANSFER
    - MOVING ONE'S BODY IN SAME POINT IN SPACE
      - LYING ON BACK, TO SIDE; SIT TO STAND)
  - AMBULATION
    - MOVING ONE'S BODY FROM POINT TO POINT
      - WALKING, STAIR CLIMBING, WHEELCHAIR MOVES)

SELF-CARE

- TWO CATEGORIES
  - ACTIVITIES OF DAILY LIVING (ADLs)
    - BASIC SELF-CARE ACTIVITIES (BATHING, FEEDING, HYGIENE)
  - INSTRUMENTAL ACTIVITIES OF DAILY LIVING (IADLs)
    - COMPLEX SELF-CARE ACTIVITIES (MEDICATIONS, FINANCIAL MANAGEMENT, COOKING)
    - CAN BE DELEGATED TO OTHERS

MEASUREMENTS OF IMPAIRMENT RATINGS

- TWO CRITERIA USED:
  - DISCRETE (AMPUTATION)
  - CONTINUOUS (DECREASED ROM)
- FOUR MEASUREMENT LEVELS
  - NOMINAL AND ORDINAL SCALES
    - CLASSIFY DISCRETE MEASURES (MUTUALLY EXCLUSIVE CATERGORIES)
  - INTERVAL AND RATIO SCALES
    - CONTINUOUS MEASURES
      - SCORES OCCUPY POINTS ON A CONTINUUM

SO, WHAT ARE THE *GUIDES* USED FOR?

- FIX DIAGNOSIS AND ASSOCIATED % OF PHYSICAL AND FUNCTIONAL LOSS AT MMI
- ALLOW PATIENTS TO MOVE ON WITH THEIR LIVES AND EXIT THE COMP SYSTEM
- PROVIDE DIAGNOSIS AND TAXONOMIC CLASSIFICATION OF IMPAIRMENT FOR OTHER LONG-TERM DISABILITY SYSTEMS

GUIDES AND WORK ESTIMATE OF WORK ABILITIES

- NOT INTENDED TO BE USED FOR DIRECT ESTIMATES OF WORK PARTICIPATION RESTRICTIONS
- IMPAIRMENT % DOES NOT DIRECTLY MEASURE WORK CAPABILITIES/RESTRICTIONS

5TH EDITION CRITICISMS

- NO STANDARDIZED APPROACH ACROSS ORGAN SYSTEMS AND CHAPTERS
- SIGNIFICANT INTERRATER VARIABILITY IN IMPAIRMENT
- BIASED, QUESTIONABLY VALID AND RELIABLE RATING SYSTEMATOLOGY
- RATINGS NOT ACCURATE REFLECTION OF FUNCTIONAL LOSS
- LIMITED DIAGNOSTIC CHOICES
- INCOMPLETE ALLOWANCE FOR FINCTIONAL AND ENVIRONMENTAL FACTORS INFLUENCING IMPAIRMENT AND DISABILITY
- CONFUSING RATING METHODOLOGIES

5TH EDITION WEAKNESSES

- ANTIQUATED, CONFUSING TERMINOLOGY
- LIMITED RATING VALIDITY AND RELIABILITY
- POOR MEANINGFUL, CONSISTENT FUNCTIONAL ASSESSMENT TOOL APPLICATION
- POOR INTERNAL CONSISTENCY
- HIGH ERROR RATE AMONG RATINGS

6TH EDITION CHANGE MANDATES

- STANDARDIZE ASSESSMENT OF ACTIVITIES OF DAILY LIVING (ADL) LIMITATIONS ASSOCIATED WITH PHYSICAL IMPAIRMENTS
- PROVIDE FUNCTIONAL ASSESSMENT TOOLS TO VALIDATE RATING SCALES
- INCLUDE FUNCTIONAL LOSS MEASURES IN RATING
- IMPROVE INTRA/INTERRATER RELIABILITY AND INTERNAL CONSISTENCY

GOALS OF 6TH EDITION

- REPLACE ICIDH ANTIQUATED TERMINOLOGY WITH THAT OF 2001 ICF
- MORE DIAGNOSIS-BASED (EVIDENCE BASED)
- PRIORITIZE SIMPLICITY/EASE OF APPLICATION
- STRESS CONCEPTUAL/METHODOLOGICAL CONGRUITY WITHIN/BETWEEN ORGAN SYSTEM RATINGS
- CONSIDER:
  - CLINICAL AND FUNCTIONAL HISTORY
  - PHYSICAL EXAM
  - THOUGHTFUL OBJECTIVE TEST RESULT REVIEW AND SYNTHESIS

6TH EDITION GOALS

- RATINGS ARE:
  - TRANSPARENT
  - CLEARLY STATED
  - REPRODUCIBLE
- BASIC DIAGNOSIS-BASED GRID TEMPLATE IS UNIVERSAL FOR EACH ORGAN SYSTEM AND CHAPTER, SO:
  - GREATER INTERNAL CONSISTENCY

EMPHASIS OF 6TH EDITION

- EXPAND SPECTRUM OF DIAGNOSES RECOGNIZED IN IMPAIRMENT RATINGS
- EMPHASIZE FUNCTIONAL CONSEQUENCES OF IMPAIRMENT
- CLARIFY AND DELINEATE KEY PHYSICAL FINDINGS
- UNDERSCORE ESSENTIAL CLINICAL TESTS

6TH EDITION CHANGES

- STANDARDIZE ADL LIMITATION ASSESSMENT ASSOCIATED WITH PHYSICAL IMPAIRMENT
- APPLY FUNCTIONAL ASSESSMENT TOOLS TO VALIDATE IMPAIRMENT RATING SCALES
- INCLUDE FUNCTIONAL LOSS MEASURES IN RATING
- IMPROVE OVERALL INTER/INTRARATER RELIABILITY AND INTERNAL CONSISTENCY

6TH EDITION FEATURES

- STANDARDIZED APPROACH ACROSS ORGAN SYSTEMS AND CHAPTERS
- ICF AND EVIDENCE-BASED CONCEPTS AND TERMINOLOGY
- MOST RECENT MEDICAL RESEARCH AND OPINIONS
- UNIFIED METHODOLOGY PROMOTING INCREASED INTERRATER RELIABILITY
- EXPANDED DIAGNOSTIC APPROACH
- USE OF PRECISE FUNCTIONAL OUTCOMES, PHYSICAL FINDINGS AND CLINICAL TEST RESULTS AS IMPAIRMENT SEVERITY MODIFIERS
- INCREASED TRANSPARENCY AND PRECISION OF RATINGS

6TH EDITION METHODOLOGY

- INTEGRATES THREE KEY COMPONENTS INTO DETERMINATION OF SEVERITY GRADE AND CORRESPONDING IMPAIRMENT VALUE
  - FUNCTIONALLY BASED HISTORY OF ILLNESS/INJURY
  - PHYSICAL FINDINGS
  - BROADLY ACCEPTED CLINICAL TEST RESULTS

HISTORY OF CLINICAL PRESENTATION

- NO SYMPTOMS OR ANTICIPATED *FUTURE* SYMPTOMS ARE CLASS 0
  - COULD HAVE HAD PAST SYMPTOMS
- MINIMAL/INTERMITTENT SXS: CLASS 1
- CONSTANT SXS DESPITE RX: CLASS 4
- MIDDLE CLASSES' SXS FALL BETWEEN THESE IN SEVERITY

HISTORY OF CLINICAL PRESENTATION (CONT.)

- NEED TO DETERMINE
  - SYMPTOM CONSISTENCY WITH RATED CONDITION
    - IS IMPACT OF SYMPTOMS CAPTURED BY THE FUNCTIONAL ASSESSMENT TOOL (IF RELEVANT)?
  - ARE SYMPTOMS INTERMITTENT, CONTINUOUS, OR BOTH?
  - SYMPTOM SEVERITY
    - BASED ON ORGAN SYSTEM-SPECIFIC CHARACTERIZATIONS

FUNCTIONAL ASSESSMENT

- HISTORY
- FUNCTIONAL IMPACT OF CONDITION
- BASED ON SUBJECTIVE REPORTS
- USES SEVERAL SELF-REPORT TOOLS
  - ASSESSED FOR CONSISTENCY WITH CLINICAL PRESENTATION, AND CREDIBILITY
  - FUNCTIONAL HISTORY GRADE MODIFIER APPLIED ONLY TO SINGLE, HIGHEST DX-BASED IMPAIRMENT

THE 6TH EDITION: SELF-REPORTED FUNCTIONAL ASSESSMENT TOOLS

- THREE ORTHOPEDIC FUNCTIONAL ASSESSMENT TOOLS USED
  - PAIN DISABILITY QUESTIONNAIRE (SPINE)
  - DISABILITIES OF ARM, SHOULDER, AND HAND (**DASH**, OR THE SHORTER ***QUICK*DASH**) QUESTIONNAIRE
  - LOWER LIMB OUTCOMES QUESTIONNAIRE
- ENABLE INCORPORATION OF FUNCTIONAL ASSESSMENT INTO IMPAIRMENT RATING

PHYSICAL FINDINGS

- PERTINENT PHYSICAL EXAM FINDINGS THAT:
  - CORROBORATE/REFUTE THE DIAGNOSIS
  - SERVE AS INDICATIVE MEASURES OF SEVERITY OF CONDITION
  - SHOULD BE DISEASE-SPECIFIC, IF POSSIBLE
  - CLASS 0 = PAST FINDINGS ONLY
  - CLASS 4 = SEVERE CONTINUOUS FINDINGS
    - ***DESPITE*** TREATMENT (NOT CONTROLLED), AND/OR
    - ***EXTREME*** INTERMITTENT FINDINGS

OBJECTIVE TEST RESULTS

- CLINICAL STUDIES
  - X-RAYS, MRI, CT, ETC.
  - SPECIFIC FINDINGS CONFIRM/VALIDATE DIAGNOSIS AND/OR CONDITION SEVERITY
  - IDENTIFY ORGAN-SPECIFIC FUNCTIONAL DEFICITS
    - NOT NECESSARILY ASSOCIATED WITH IMPARIMENT IN ADLs
    - OBTAINED TO DEVELOP TREATMENT PROTOCOLS OR ASSESS PROGNOSIS
    - INCLUDES ORGAN FUNCTION DESCRIPTIVE DYNAMIC TESTS
  - USUALLY, COMBINATION OF SEVERITY, REVERSIBILITY AND CONSISTENCY, AND NUMBER OF ABNL TESTS DETERMINES CLASS AND GRADE ASSIGNMENT

6TH EDITION GRIDS

- BASED ON ICF METHODOLOGY
- DIAGNOSIS BASED
  - FIVE IMPAIRMENT CLASSES
    - RATE PATIENT FROM NO IMPAIRMENT TO MOST SEVERE
  - DIAGNOSIS BASED GRIDS FOR EACH ORGAN SYSTEM
  - RATED ACCORDING TO CONSENSUS-BASED DOMINANT CRITERION

6TH EDITION METHODOLOGY: FUNCTIONAL LEVELS

- BASED ON ICF FUNCTIONALLY BASED TAXONOMY LINKING SPECIFIC CONDITIONS TO AN ORDINAL LEVEL OF CLINICAL SEVERITY BASED ON % OF FUNCTIONS LOST
- 5 SCALE, DIAGNOSIS BASED IMPAIRMENT (DBI)
  - 0 (NO PROBLEM)
  - 1 (MILD PROBLEM)
  - 2 (MODERATE PROBLEM)
  - 3 (SEVERE PROBLEM)
  - 4 (COMPLETE PROBLEM)

THE GRIDS

- EACH HAS IDENTICAL COMPONENTS
  - IMPAIRMENT CLASS
    - 5 CLASSES (0-4), CONSISTENT WITH ICF TAXONOMY
  - IMPAIRMENT %
    - RANGE WITHIN EACH IMPAIRMENT CLASS
  - IMPAIRMENT CRITERION 1
    - HX OF CLINICAL PRESENTATION (HCP) SUPPORTING DX-BASED/REGIONAL NATURE OF IMPAIRMENT CLASS

THE GRIDS (CONT.)

- IMPAIRMENT CRITERION 2
  - PHYSICAL FINDINGS
    - EXAMINATION FINDINGS FOR EACH IMPAIRMENT CLASS
  - IMPAIRMENT CRITERION 3
    - CLINICAL STUDIES/OBJECTIVE TEST RESULTS
    - SPECIFIED WHERE APPLICABLE FOR EACH IMPAIRMENT CLASS
  - IMPAIRMENT CRITERION 4
    - FUNCTIONAL HISTORY/ASSESSMENT
      - EVIDENCE OF SYMPTOMATIC DYSFUNCTION AND FUNCTIONAL LOSS DUE TO IMPAIRMENT

DIAGNOSIS-BASED IMPAIRMENT (DBI)

- COMPRISED OF DIAGNOSIS AND SPECIFIC CRITERIA, CONSIDERED THE "KEY" FACTOR
- SUBSEQUENTLY ADJUSTED BY GRADE MODIFIERS OR "NON-KEY" FACTORS
  - FUNCTIONAL HISTORY (FH)
  - PHYSICAL EXAMINATION (PE)
  - CLINICAL STUDIES (CS)
  - EACH IS ONLY USED IF CONSIDERED RELIABLE AND ASSOCIATED WITH THE DIAGNOSIS

GENERIC IMPAIRMENT CLASSIFICATION GRID TEMPLATE

CLASS	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
IMPAIRMENT RATING (%)	0	MINIMAL %	MODERATE %	SEVERE %	VERY SEVERE %
SEVERITY GRADE (%)		(ABCDE)	(ABCDE)	(ABCDE)	(ABCDE)
HISTORY OF CLINICAL PRESENTA-TION	NO CURRENT SXS, ***AND/OR*** INTERMIT-TENT SXS NOT NEEDING RX	SXS CONTROLLED W/ CONTINUOUS RX, ***OR*** INTERMITTENT MILD SXS DESPITE CONTINUOUS RX ("DCT"	CONSTANT MILD SXS DESPITE CONTINUOUS RX, ***OR*** INTERMITTENT MOD. SXS DESPITE CONTINUOUS RX	CONSTANT MOD. SXS DESPITE CONTINUOUS RX, ***OR*** INTERMITTENT SEVERE SXS DESPITE CONTINUOUS RX	CONSTANT SEVERE SXS DESPITE CONTINUOUS RX, ***OR*** INTERMITENT EXTREME SXS DESPITE CONTINUOUS RX
PHYSICAL EXAM OR PHYSICAL FINDINGS	NO CURRENT SIGNS OF DISEASE	FINDINGS NOT PRESENT WITH CONTINUOUS RX, ***OR*** INTERMITTENT MILD FINDINGS	CONSTANT MILD FINDINGS, DCT, ***OR*** INTERMITTENT MODERATE FINDINGS	CONSTANT MOD. FINDINGS DCT, ***OR*** INTERMITTENT SEVERE FINDINGS	CONSTANT SEVERE FINDINGS DCT, ***OR*** INTERMITTENT EXTREME FINDINGS
CLINICAL STUDIES/TEST RESULTS	TESTING CURRENTLY NORMAL	CONSISTENTLY NL WITH CONT. RX, ***OR*** INTERMITTENT MILD ABNLTIES	PERSISTENT MILD ABNLTIES DCT, ***OR*** INTERMITTENT MOD. ABNLTIES	PERSISTENT MOD. ABNLTIES DCT, ***OR*** INTERMITTENT SEV. ABNLTIES	PERSISTENT SEVERE ABNLTIES DCT, ***OR*** INTERMITTENT EXTREME ABNLTIES

GRADE MODIFIER (MUSCULOSKELETAL CHAPTERS)

GRADE MODIFIER	0	1	2	3	4
FUNCTIONAL HISTORY (BASED ON SELF-REPORT)	NO SYMPTOM	PAIN/SXS WITH STRENUOUS/ VIGOROUS ACTIVITY; ABLE TO PERFORM SELF-CARE ACTIVITIES INDEPEN-DENTLY	PAIN/SXS WITH NORMAL ACTIVITY; ABLE TO PERFORM SELF-CARE ACTIVITIES WITH MODIFICA-TION BUT UNASSISTED	PAIN/SXS WITH LESS THAN NL ACTIVITY (MINIMAL); REQUIRES ASSISTANCE TO PERFORM SELF-CARE ACTIVITIES	PAIN/SXS AT REST; UNABLE TO PERFORM SELF-CARE ACTIVITIES

DBI BASED METHODOLOGY

- DIAGNOSIS-BASED IMPAIRMENT REGIONAL GRID
  - KEY FACTOR
  - DEFINES CLASS OF IMPAIRMENTS
- ADJUSTMENT GRIDS/GRADE MODIFIERS
  - FUNCTIONAL HISTORY
  - PHYSICAL EXAMINATION
  - CLINICAL STUDIES

USE OF THE GRID TEMPLATE: ASSIGNING IMPAIRMENT

- CHOSE IMPAIRMENT CRITERION (HCP, EXAM, TESTING) THAT IS "KEY FACTOR" FOR DETERMINATION OF IMPAIRMENT CLASS FOR THE CONDITION
  - USUALLY IS THE HCP/DBI
- CHOSE THE APPROPRIATE CLASS FOR THE IMPAIRMENT (IN ROW OF IMPAIRMENT CRITERION CHOSED)

USING THE GRID (CONT.)

- NOTE THE RANGE OF AVAILABLE RATINGS WITHING THE CHOSEN CLASS
  - USUALLY DIVIDED INTO 5 IMPAIRMENT GRADES (ABCDE)
    - FIRST GRADE IS LOWEST RATING/CHOSEN IMPAIRMENT CLASS
    - LAST GRADE IS HIGHEST RATING
    - USUALLY DEFAULT TO GRADE “C” MIDWAY BETWEEN THE GRADES
    - THIS PROVIDES THE PRELIMINARY RATING

USING THE GRID (CONT.)

- SOME CHAPTERS INCLUDE ASSESSMENT OF FUNCTIONAL HISTORY
  - USED AS ONE OF THE NON-KEY FACTORS TO ADJUST FINAL IMPAIRMENT RATING WITHIN A CLASS
  - INCORPORATES SELF-REPORTING TOOL
  - IF USED, RATER MUST EXPLAIN RATIONALE OF RESULT CLINICAL CONSISTENCY AND CREDIBILITY
- BOTC (USED IN SOME CHAPTERS) CAN SHIFT GRADE WITHIN A CLASS (HIGHER)
- INCLUSION OS FUNCTIONAL HX AND BOTC PRECLUDES NEED FOR ADDITIONAL % FOR PAIN, MEDS, TREATMENT SIDE EFFECTS
- COMBINE MULTIPLE ORGAN SYSTEM IMPAIRMENT PERCENTAGES FOR FINAL RATING

USING THE GRID (CONT.)

- ADJUST THE PRELIMINARY RATING
  - INCORPORATE RESULTS OF RATING THE OTHER "NON-KEY" FACTORS (IMPAIRMENT CRITERIA)
    - INCLUDES RESULTS OF FUNCTIONAL HISTORY, PHYSICAL EXAM, AND/OR CLINICAL STUDIES THAT WERE NOT USED AS THE "KEY" FACTOR
    - USE SAME METHODOLOGY FOR CLASS ASSIGNMENT FOR NON KEY FACTORS
      - IF SAME CLASS AS THAT OF THE KEY FACTOR, FINAL RATING STAYS IN MIDDLE GRADE OF THAT CLASS
      - IF FACTORS HIGHER/LOWER, NEED TO MODIFY IMPAIRMENT GRADE (TO GRADE "E" IF BOTH HIGHER, GRADE "A" IF BOTH LOWER.
      - AMOUNT OF SHIFT BASED ON DEGREE OF VARIATION
    - NON-KEY FACTORS DO NOT ALTER THE SELECTED CLASS! (JUST GRADE WITHIN THAT CLASS)

GENERIC IMPAIRMENT CLASSIFICATION GRID TEMPLATE

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SEVERITY GRADE (%)		(ABCDE)	(ABCDE)	(ABCDE)	(ABCDE)
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PHYSICAL EXAM OR PHYSICAL FINDINGS	NO CURRENT SIGNS OF DISEASE	FINDINGS NOT PRESENT WITH CONTINUOUS RX, ***OR*** INTERMITTENT MILD FINDINGS	CONSTANT MILD FINDINGS, DCT, ***OR*** INTERMITTENT MODERATE FINDINGS	CONSTANT MOD. FINDINGS DCT, ***OR*** INTERMITTENT SEVERE FINDINGS	CONSTANT SEVERE FINDINGS DCT, ***OR*** INTERMITTENT EXTREME FINDINGS
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GRID USE FLEXIBILITY

- NOT TO BE USED RIGIDLY
- MAY BE SLIGHTLY DIFFERENTLY FORMATTED DEPENDENT ON ORGAN SYSTEM
- CAN OMIT ONE/SEVERAL CRITERIA IF NOT MATERIAL FACTORS IN DRIVING RATING (PHYSICAL EXAM, OBJECTIVE TESTING, ETC.)
- CAN ADD A FACTOR, USING BURDEN OF TREATMENT COMPLIANCE (BOTC)

CALCULATING IMPAIRMENT: GENERAL PRINCIPLES/RULE 1

- DEPENDING ON BODY PART OR DISEASE PROCESS, USE HX OF CLINICAL PRESENTATION, PHYSICAL FINDINGS, OR OBJECTIVE TEST RESULTS AS THE KEY FACTOR
  - ASSIGN SUBJECT TO IMPAIRMENT CLASS IN ROW 3, AS WELL AS A GRADE (A-E) FOR THAT IMPAIRMENT CLASS AS THE INITIAL WHOLE PERSON IMPAIRMENT RATING
  - IF SEVERITY GRADE AMBIGUOUS, DEFAULT TO MEDIAN GRADE C
  - KEY FACTOR ALWAYS DETERMINES CLASS FOR FINAL IMPAIRMENT

CALCULATING IMPAIRMENT: GENERAL RULE 2

- ASSIGN CLASSES BASED ON THE OTHER (NON-KEY) IMPAIRMENT CRITERIA FROM REMAINING 2 ROWS

CALCULATING IMPAIRMENT: GENERAL RULE 3

- WHEN ANOTHER NON-KEY CLASS ASSIGNMENT IS HIGHER
  - INCREASE THE INITIAL RATING
- WHEN ANOTHER NON-KEY CLASS ASSIGNMENT IS LOWER
  - DECREASE THE INITIAL RATING
- CHANGE 1 OR MORE GRADES DEPENDING ON AMOUNT OF DIFFERENCE BETWEEN FACTOR RATING FOR EACH SUCCESSIVE ROW, COMPARED TO INITIAL KEY FACTOR OR GRADE
- ASSIGN THIS AS THE PRELIMINARY RATING FOR THE ORGAN SYSTEM

NET ADJUSTMENT CALCULATION

- USED TO DETERMINE THE NET ADJUSTMENT AND MODIFICATION OF THE DEFAULT "C" GRADE WITHIN THE CLASS CHOSEN BY THE KEY FACTOR
- **NET ADJUSTMENT = (GMFH - CDX) + (GMPE – CDX) + (GMCS – CDX)**
- GMFH = GRADE MODIFIER FUNCTIONAL HISTORY (IF VALID)
- CDX = CLASS DIAGNOSIS
- GMPE = GRADE MODIFY PHYSICAL EXAMINATION
- GMCS = GRADE MODIFIER CLINICAL STUDIES

CALCULATING IMPAIRMENT: GENERAL RULE 4

- RARELY, ALSO NEED TO CALCULATE THE "BURDEN OF TREATMENT COMPLIANCE" (BOTC) TO MODIFY GRADE FURTHER
  - BASED ON THE RESULT
  - CAN ALSO USE FOR THE BASIS FOR THE IMPAIRMENT CLASS
  - USE WHEN NO OTHER FACTORS ARE EASILY QUANTIFIED

CALCULATING IMPAIRMENT: GENERAL RULE 5

- ***COMBINE*** THE RATINGS FROM DIFFERENT ORGAN SYSTEMS TO ARRIVE AT FINAL IMPAIRMENT RATING

BOTC: BURDEN OF TREATMENT COMPLIANCE

- USES A POINT SYSTEM, CONVERTED TO AN IMPAIRMENT %
- POINTS ASSIGNED ON BASIS OF:
  - MEDICATION USAGE (PER MED) AND ROUTE OF USE/FREQUENCY
  - DIETARY MODIFICATIONS
  - ROUTINELY PERFORMED PROCEDURE FREQUENCY
  - HX OF PRIOR OPERATIVE PROCEDURE/RADIATION THERAPY
- POINTS CONVERTED INTO IMPAIRMENT

MODIFIER WHEN TREATMENT MINIMIZES OBJECTIVE ORGAN DYSFUNCTION, BUT WITH SIGNIFICANT ADL COMPROMISE

- CAN ADD 1-3 % TO IMPAIRMENT
- BASED ON FACTORS
  - NUMBER/ROUTE OF MEDS TAKEN
  - NEED TO REGULARLY UNDERGO DIAGNOSTIC TESTS/INVASIVE PROCEDURES
  - ONLY USED IF THESE FACTORS ***NOT*** ALREADY CONSIDERED IN PRELIMINARY RATING
  - POINTS ARE ADDED ONTO FINAL IMPAIRMENT RATING

BOTC USE

- USUALLY WON'T RESULT IN > 3% IMPAIRMENT INCREASE

BOTC CONVERSION TABLE

TOTAL POINTS	IMPAIRMENT %	POINT TOTAL	IMPAIRMENT %
0 - 1	0	26 - 30	6
2 - 5	1	31 - 35	7
6 - 10	2	36 - 40	8
11 - 15	3	41 - 45	9
16 - 20	4	46 +	10
21 - 25	5		

6TH EDITION PAIN CHAPTER

- PAIN
  - CAPS AT 3% INCREASE IN RATING
  - ELIGIBILITY CRITERIA
    - REASONABLE MEDICAL BASIS
    - PATIENT IDENTIFIES PAIN AS A MAJOR PROBLEM
    - CONDITION CANNOT BE RATED USING STANDARD METHODOLOGY
    - PRI RATING NOT SPECIFICALLY EXCLUDED BY RELEVANT JURISDICTION
  - ASSESS USING PDQ AND ***GUIDES*** RELEVANT TABLE(S)

THE SPINE

- DIVIDED INTO CERVICAL, THORACIC, LUMBAR, AND PELVIS SECTIONS
- NO LONGER INCLUDES ROM TESTING
- DIAGNOSES BASED ON CATEGORIES:
  - NON-SPECIFIC, CHRONIC (RECURRENT) SPINE PAIN
  - INTERVETEBRAL DISK AND MOTION SEGMENT PATHOLOGY
  - STENOSIS
  - FRACTURES/DISLOCATIONS
  - GRIDS APPROXIMATE 5TH EDITION DREs

EXAMPLE 1

- HISTORY: 48 y/o man with lumbar disc herniation. Initially with left leg radiation in an l5 distribution, now resolved. Continues with low back pain with activity, with left leg pain with normal activity.
- PHYSICAL EXAM: Moves stiffly, c/o pain with back extension. Mild tenderness to touch to the L4-L5 segments of his spine. Has left sciatic notch tenderness to touch. SLR is positive, with pain in an L5 distribution; neurologic exam of his left leg shows decreased L5 sensation. Reflexes are 2+.
- CLINICAL TESTS: MRI of the L/S spine shows L4-L5 disk protrusion, with impingement on the left L5 nerve root, otherwise normal.
- FUNCTIONAL HISTORY: PDQ score c/w severe disability

EXAMPLE 1: DETERMINATION OF IMPAIRMENT

- Diagnosis: Lumbar disk herniation, left L4-5, with left L5 radiculopathy
- Rating steps:
  - Regional impairment: Grid entitled "Motion Segment Lesions" found to be appropriate for diagnosis
  - Using diagnosis, assigned to Class 2, with % range of 10-14% (with default impairment grade C = 12% WPI (Diagnosis Based Impairment)
  - Using adjustment grid, FH = 3, Hx = 2 (of FH vs. Hx, use highest of two), PE = 2 (+SLR + sensory loss), testing = 2
  - (GMFH – CDX) = (3-2) = 1 +
  - (GMPE – CDX) = (2 – 2) = 0 +
  - (GMCS – CDX) = (2 -2) = 0
  - SO 1 + 0 + 0 = +1 NET ADJUSTMENT (CLASS 2 GRADE D)
  - FINAL IMPAIRMENT, THEN = 12 + 1 = 13% (WPI)

EXAMPLE 1: HNP WITH RADICULOPATHY

MOTION SEGMENT LESIONS

CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
0 %	5 6 7 8 9	10 11 12 13 14	15 17 19 21 23	25 27 29 31 33
INTERVETEBRAL DISK HERNIATION OR DOCUMENTED AOMSI AT 1 OR MORE LEVELS WITH MEDICALLY DOCUMENTED INJURY WITH/WITHOUT SURGERY. NO RESIDUAL SYMPTOMS/SIGNS	DISK HERNIATION OR AOMSI, SINGLE LEVEL/MULTIPLE LEVELS, WITH/WITHOUT SURGERY AND RESOLVED RADIC. AT CLINICALLY APPROPRIATE LEVEL/NONVERI-FIABLE RADIC. SYMPTOMS AT CLINICALLY APPROPRIATE LEVEL(S)	DISK HERN. AND/OR AOMSI AT SINGLE LEVEL WITH/WITHOUT SURGERY AND RADIC AT CLINICALLY APP. LEVEL PRESENT AT TIME OF EXAM (GRADE MODIFIER FOR PE FINDINGS CONSISTENT WITH RADIC)	DISK HERN. AND/OR AOMSI AT MULTIPLE LEVELS WITH/WITHOUT SURGERY AND WITH/WITHOUT RADIC. AT SINGLE LEVEL PRESENT AT TIME OF EXAM (GRADE MODIFIER FOR PE FINDINGS CONSISTENT WITH RADIC)	DISK HERN. AND/OR AOMSI AT MULTIPLE LEVELS WITH/WITHOUT SURGERY AND BILAT/MULTI-LEVEL RADIC. AT CLINICALLY APPROPRIATE LEVELS AT TIME OF EXAM (GRADE MODIFIER FOR PE FINDINGS CONSISTENT WITH RADIC)

EXAMPLE 2: KNEE

- HISTORY: 50 y/o man with twisting knee injury, with swelling, instability, positive findings suggestive of ACL tear. No surgery.
- EXAM: Moderate laxity on Lachmann's testing.
- CLINICAL STUDIES: MRI with ACL tear

EXAMPLE 2: KNEE (CONT.)

- DIAGNOSIS: ACL tear, knee.
- Use grid entitled "Cruciate or collateral ligament injury"
  - Moderate laxity used as key factor = Class 2, Grade C (default) = 16% impairment
  - Adjustment grid: Functional Hx = 2; Exam = 2

    Studies = N/A (used in establishing diagnosis)
    - So: (2 – 2) + (2 – 2) + (n/a – 2) = 0 + 0 + n/a = 0
    - And final impairment is 16% + 0% = 16% (LEI)
    - If s/p ACL repair: 10% LEI

KNEE REGIONAL GRID

DIAGNOSTIC CRITERIA/KEY	CLASS 0	CLASS 1	CLASS 2	CLASS 3	CLASS 4
CLASS DEFINITIONS	NO PROBLEM	MILD PROBLEM	MODERATE PROBLEM	SEVERE PROBLEM	VERY SEVERE PROBLEM
IMPAIRMENT RANGES	0% LE	1% -13% LE	14% - 25% LE	26% - 49% LE	50% - 100% LE
GRADE		A B C D E	A B C D E	A B C D E	A B C D E
CRUCIATE OR LIGAMENT INJURY; SURGERY NOT RATING FACTOR	0 NO INSTABILITY	7 8 10 12 13	14 15 16 17 18	N/A	N/A

GUIDES TO THE FUTURE

- OVERALL, RATINGS VERY SIMILAR TO 5TH EDITION
- CHANGES, PARTICULARLY IN THE SPINE, REFLECT THE POSITIVE IMPACT OF SURGERY ON OUTCOME
  - FUSIONS
- SHOULD BE A BIT LESS INTER/INTRARATER VARIABILITY
- MORE CONSISTENT METHODOLOGY BETWEEN CHAPTERS/SECTIONS

THE 6TH VS. THE 5TH

	6TH ED.	5TH EDITION
STENOSING TENOSYNOVITIS	0	0
METACARPAL FRACTURE	1	0
WRIST CONTUSION	0	0
WRIST FUSION	17	17
TENNIS ELBOW	0	0
ROTATOR CUFF TEAR W/ REPAIR	4	3
SHOULDER ARTHROPLASTY	13	14
MEDIAL MENISCAL TEAR	1	1
ACL + MMT REPAIR	12	13
TOTAL KNEE REPLACEMENT	12	25
HIP FRACTURE	12	25

MORE 6TH VS. 5TH

	6TH	5TH
CERVICAL FUSION	7	25
CERVICAL HNP, RADICULOPATHY RESOLVED	6	7
L/S HNP, RESOLVED	0	0
L/S HNP, RADICULOPATHY	12	10

GUIDES TO POTENTIAL PITFALLS WITH THE 6TH

- VARIABLE ASSESSMENTS OF MILD, MODERATE, AND SEVERE
- FUNCTIONAL HISTORY: TO USE OR NOT TO USE?
- DISTINCTION OF CLINICAL STUDIES/EXAM CLASSES
  - LOWER EXTREMITY (ACL LAXITY)
- PAIN INCLUSIONS
- DETERMINATION OF RELEVANCE OF EACH MODIFIER (WAS TEST RESULT USED TO DETERMINE THE DBI, OR NOT?)
- NEED TO REMEMBER, FOR EACH RATING, TO RATE MOST SIGNIFICANT DX IN A REGION, ***NOT*** MULTIPLE DIAGNOSES, UNLESS OBJECTIVELY VALID

THANK YOU!!!

AND GOOD LUCK!